

I claim:

1. A method for selecting optimized transmission in a television distribution network, the method comprising the steps of:
receiving information relating to data to be transmitted to at least one set-top box, said information comprising metadata related to said data to be transmitted and an identification of said at least one set-top box;
building a list of available transmission paths for the said set-top box;
and selecting an optimal transmission path based on said list and said metadata; and,
transmitting the data to the set-top box using said selected transmission path.
2. The method as claimed in claim 1 wherein said metadata comprises information selected from a list consisting of type of data to be transmitted, type of application that generated the data, type of application to receive the data, latency constraints of the data, or a combination thereof.
3. The method as claimed in claim 1 or 2 wherein said step of building further comprises the step of retrieving information related to said set-top box from a database.
4. The method of claim 3, wherein the retrieved information comprises information on available transmission paths and capabilities of the set-top box.
5. The method as claimed in any preceding claim, further comprising the step of querying said set-top box to obtain data indicative of available transmission paths thereto.
6. The method as claimed in claim 3 or 4, further comprising the step of querying the set-top box to obtain data indicative of available transmission paths thereto.
7. The method as claimed in any preceding claim, further comprising the step of getting information relating to network load and creating said list in accordance with the load information.
8. The method of any of preceding claim, wherein said step of selection is facilitated by a policy.
9. The method according to claim 8, wherein said policy is modifiable.
10. A method according to any preceding claim wherein said step of building further comprises the step of retrieving information relating to load conditions in said distribution system, and wherein said list is constructed in accordance with said load conditions.

11. An apparatus for selecting optimized transmission in a television distribution network having a headend and a plurality of set-top boxes, the apparatus comprises:
 - a list creator, adapted to create a list of available transmission paths from the headend to a specified set-top box, or a group of specified set-top boxes; and,
 - a data route selector, adapted to automatically select the best applicable transmission path from said list for transmitting based on a policy applied to the combination of at least a data type to be transmitted and said list.
12. An apparatus as claimed in claim 11 wherein said list creator further comprises an information retriever module adapted for querying a data base for information regarding said set-top box capabilities and transmission paths available thereto
13. an apparatus as claimed in claim 11 or 12 wherein said information retriever module is further adapted to query said set-top box for information on available transmission paths available thereto, or the its capabilities, or a combination thereof.
14. An apparatus as claimed in any of claims 11-13, wherein said list creator further comprises an information retriever module adapted to query said set-top box for information on available transmission paths and capabilities of said set-top box.
15. An apparatus as claimed in any of claims 11-14, wherein said list creator is further adapted for retrieving information relating to network load and creating said list in accordance with the load information.
16. An apparatus as claimed in any of claims 11-15, wherein said list creator is further adapted to retrieve information relating to load conditions of said distribution network, and utilize said information in creating said list.